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(54) Title: PREPARATION OF ALKYL-SUBSTITUTED 2-DEOXY-2-FLUORO-D-RIBOFURANOSYL PYRIMIDINES AND PURINES AND THEIR DERIVATIVES

(57) Abstract: The present invention provides (i) a process for preparing a 2-deoxy-2-fluoro-2-methyl-D-ribonolactone derivative, (ii) conversion of the lactone to nucleosides with potent anti-HCV activity, and their analogues, and (iii) a method to prepare the anti-HCV nucleosides containing the 2-deoxy-2-fluoro-2-C-methyl-β-D-ribofuranosyl nucleosides from a preformed, preferably naturally-occurring, nucleoside.

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US05/25916

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(8): C07H 19/00( 2006.01),21/00( 2006.01)  
C07H 5/04( 2006.01),5/06( 2006.01);C08B 37/00( 2006.01)

USPC: 536/4.1,18.6,18.7,22.1,25.3

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 536/4.1, 18.6, 18.7, 22.1, 25.3

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
WEST, CAPLUS, MEDLINE

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,118,820 (HERTEL) 02 June 1992 (02.06.1992).	1-18
A	KOTRA, L.P. "Structure-Activity Relationships of 2'-Deoxy-2',2'-difluoro-L-erythro-pentofuranosyl Nucleosides," J. Med. Chem., 1997, Vol. 40, pages 3635-3644.	1-18
A	HERTEL et al. "Synthesis of 2-Deoxy-2,2-difluoro-D-ribose and 2-Deoxy-2,2-difluoro-D-ribofuranosyl Nucleosides", 1988, Vol. 53, pages 2406-2409.	1-18

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